

BS00216

09/749,825 Art Unit 2614  
Response to May 6, 2005 Office Action**AMENDMENT TO THE CLAIMS**

1. (Currently Amended) A system for providing digital entertainment data, the system comprising:
  - a data switch, ~~the data switch~~ having a plurality of switch ports;
  - a mass storage device, ~~the mass storage device~~ coupled to a switch port of ~~the plurality of switch ports of the data switch~~;
  - multiple tuners each selecting a respective content item from a plurality of content items ~~a tuner, the tuner to select an information channel of a plurality of information channels~~;
  - a demodulator, ~~the demodulator~~ coupled to ~~both another~~ switch port of the plurality of switch ports of the data switch, ~~the tuner~~; and
  - a shared communications link to a third switch port of the data switch, the shared communications link shared amongst the multiple tuners, wherein the multiple tuners each share the communications link to communicate information to the third switch port.
2. (Currently Amended) The system of claim 1, wherein the shared communications link is an Ethernet communications link ~~further comprising a Web server, the Web server coupled to the data switch.~~
3. (Currently Amended) The system of claim 1, wherein the shared communications link is a shared system bus ~~demodulator is to receive a transmission signal and output an information signal, the transmission signal including a carrier signal and the information signal.~~

BS00216

09/749,825 Art Unit 2614  
Response to May 6, 2005 Office Action

4. (Currently Amended) The system of claim 1, the system further comprising an overlay processor coupled to a fourth port of the data switch via an internal bus structure, the overlay processor superimposing multiple information signals onto a first information signal ~~decryption logic coupled to the demodulator, the decryption logic to receive an encrypted information signal and output a decrypted information signal.~~
5. (Currently Amended) The system of claim 1, wherein the mass storage device stores an item identifier corresponding to each stored content item, the item identifier having a value that indicates the content item has been played, another value indicating the content item has been purchased, and a third value indicating the content item has been licensed ~~the system further comprising encryption logic coupled to the data switch, the encryption logic to receive an unencrypted information signal and output an encrypted information signal.~~
6. (Currently Amended) The system of claim 1, wherein the mass storage device stores an item identifier corresponding to each stored content item, the item identifier storing a cost of playback for each content item and a second cost of purchase for each content item ~~further comprising a broadband data port, the broadband data port coupled to a switch port of the plurality of switch ports of the data switch.~~
7. (Currently Amended) The system of claim 6 1, wherein a the broadband data port couples to the data switch is to receive a content item data from a broadband data service provider, the content item downloaded and stored on the mass storage device at a data rate that is less than a playback rate in bytes per second, and the system monitoring when a remaining amount of time required to complete the download is less than a playback time of the content item, such that the system may indicate that the content item is available for playback.

BS00216

09/749,825 Art Unit 2614  
Response to May 6, 2005 Office Action

8. (Currently Amended) The system of claim 1, wherein a broadband data port couples to the data switch to receive a content item from a broadband service provider, the content item communicated from the data switch for storage at the mass storage device, the content item comprising a content item storage position identifier specifying a logical storage position in the mass storage device, and when new content items are downloaded and stored, a new content item storage position identifier is also downloaded for the content item already stored on the mass storage device ~~further comprising a first multimedia input, the first multimedia input coupled to the tuner.~~
9. (Currently Amended) The system of claim 8, further comprising a first multimedia input, the first multimedia input coupled to the multiple tuners, wherein the first multimedia input is to receive a plurality of transmission signals.
10. (Original) The system of claim 9, wherein the plurality of transmission signals include a plurality of television program signals.
11. (Original) The system of claim 9, wherein the plurality of transmission signals include an audio signal.
12. (Original) The system of claim 9, wherein the plurality of transmission signals include a data signal.
13. (Original) The system of claim 9, wherein the plurality of transmissions signals are received from a transmission facility selected from the group consisting of a direct broadcast satellite, a cable headend, and a terrestrial transmitter.

BS00216

09/749,825 Art Unit 2614  
Response to May 6, 2005 Office Action

14. (Original) The system of claim 9, wherein the plurality of transmission signals are multiplexed transmission signals selected from the group of frequency divided multiplexed transmission signals, time divided multiplexed transmission signals, code divided multiplexed transmission signals, wavelength divided multiplexed transmission signals, and dense wavelength divided multiplexed transmission signals.
15. (Currently Amended) The system of claim 1, wherein at least one of the multiple tuners selects an information channel of a plurality of information channels at least in part by  
receiving a plurality of transmission signals, and  
outputting a transmission signal of the plurality of transmission signals.
16. (Currently Amended) The system of claim 1, wherein the mass storage device receives and stores the content item ~~information signal~~.
17. (Currently Amended) The system of claim 1, wherein  
the data switch receives an ~~the~~ information signal,  
the data switch sends the information signal to the mass storage device, and  
the mass storage device stores the information signal.
18. (Currently Amended) The system of claim 1, wherein  
an analog-to-digital converter receives an ~~the~~ information signal,  
the analog-to-digital converter outputs a digital information signal, the digital information signal based at least in part on the information signal, and  
the mass storage device stores the digital information signal.
19. (Original) The system of claim 18, wherein the digital information signal is an Motion Pictures Expert Group 2 (MPEG-2) encoded digital information signal.

BS00216

09/749,825 Art Unit 2614  
Response to May 6, 2005 Office Action

20. (Currently Amended) The system of claim 1, wherein  
an analog-to-digital converter receives ~~an~~ the information signal,  
the analog-to-digital converter outputs a digital information signal, the digital  
information signal based at least in part on the information signal,  
encryption logic receives the digital information signal,  
the encryption logic outputs an encrypted digital information signal, and  
the mass storage device stores the encrypted digital information signal.
21. (Original) The system of claim 8, further comprising  
a second multimedia input, the second multimedia input coupled to a switch port  
of the data switch, the second multimedia input to receive a multimedia signal,  
wherein the data switch is to receive the multimedia signal.
22. (Currently Amended) The system of claim 1, further comprising  
a plurality of broadband data communication links, each broadband data  
communication link ~~of the plurality of broadband data communication links~~ coupled to a  
respective switch port ~~of the plurality of switch ports~~ of the data switch, and  
a plurality of digital set top boxes, each digital set top box ~~of the plurality of  
digital set top boxes~~ coupled to a respective broadband data communication link.
23. (Original) The system of claim 22, wherein the plurality of broadband data communication  
links are selected from the group consisting of category 5 cables, category 5e cables,  
category 6 cables, category 7 cables, and OC-3 cables.
24. (Currently Amended) The system of claim 22, wherein at least one digital set top box ~~of  
the plurality of digital set top boxes~~ includes a digital data interface, the digital data  
interface to communicate with the data switch.
25. (Currently Amended) The system of claim 22, further comprising a lower bandwidth  
communication interface, the lower bandwidth communication interface coupled to yet  
another switch port ~~of the plurality of switch ports~~ of the data switch.

BS00216

09/749,825 Art Unit 2614  
Response to May 6, 2005 Office Action

26. (Original) The system of claim 25, wherein the lower bandwidth communication interface is selected from the group consisting of a Home Phoneline Networking Alliance 2.0 (HomePNA 2.0) interface, a HomeRF Shared Wireless Access Protocol (HomeRF SWAP) interface, an IEEE 802.11 interface, and a Bluetooth interface.
27. (Original) The system of claim 1, wherein the data switch is an Ethernet switch.
28. (Original) The system of claim 24, wherein the digital data interface is an Ethernet interface.
29. (Original) The system of claim 1, wherein the data switch is a router.

BS00216

09/749,825 Art Unit 2614  
Response to May 6, 2005 Office Action

30. (Currently Amended) A system for providing digital entertainment data, the system comprising:

multiple tuners each selecting a respective content item from a plurality of content items and each tuner producing an output signal ~~a first tuner, the first tuner adapted to receive a plurality of transmission signals and to selectively output a first transmission signal of the plurality of transmission signals;~~

a data switch having a plurality of switch ports;

a shared communications link between the multiple tuners and a switch port of the data switch, the shared communications link shared amongst the multiple tuners, wherein the multiple tuners each share the communications link to communicate information to the switch port

a first demodulator, the first demodulator coupled to another switch port of the data switch ~~the first tuner, the first demodulator adapted to receive the output signal via the shared communications link to the data switch and producing a demodulated content item transmission signal, the transmission signal including an information signal, the first demodulator to output the information signal;~~

~~a data switch, the data switch coupled to the first demodulator, the data switch adapted to receive the information signal;~~ and

a mass storage device, the mass storage device coupled to the data switch, the mass storage device adapted to store the demodulated content item ~~information signal.~~

31. (Currently Amended) The system of claim 30, further comprising:

decryption logic coupled to the first demodulator

encryption logic coupled to the decryption logic,

wherein the content item ~~information signal~~ is a first encrypted information signal, the decryption logic decrypting the first encrypted information signal, the encryption logic encrypting the decrypted first encrypted information signal to generate a second encrypted information signal, the second encrypted information signal being sent to the data switch, the mass storage device storing the second encrypted information signal..

BS00216

09/749,825 Art Unit 2614  
Response to May 6, 2005 Office Action

32. (Original) The system of claim 30, wherein the data switch has a plurality of high bandwidth switch ports.
33. (Original) The system of claim 32, wherein the plurality of high bandwidth switch ports include a plurality of 100Base-T Ethernet switch ports.
34. (Original) The system of claim 32, wherein the data switch has a switch port coupled to a lower bandwidth communications device.
35. (Original) The system of claim 34, wherein the lower bandwidth communications device is selected from the group consisting of a Home Phoneline Networking Alliance (HomePNA) port, a HomeRF Shared Wireless Access Protocol (SWAP) transceiver, an IEEE 802.11 transceiver, and a Bluetooth transceiver.
36. (Currently Amended) A method of providing digital entertainment data, the method comprising:
- receiving a plurality of transmission signals at multiple tuners, each transmission signal including an information signal;
  - selecting a first transmission signal of the plurality of transmission signals;
  - demodulating the first transmission signal to isolate a first information signal;
  - storing the first information signal on a mass storage device;
  - sending the first information signal to a digital data switch via a shared communications link between the data switch and the multiple tuners, the shared communications link shared amongst the multiple tuners, wherein the multiple tuners each share the communications link to communicate information signals to the data switch; and



ERROR: timeout  
OFFENDING COMMAND: timeout

STACK:

5027  
1258

**BEST AVAILABLE COPY**

BS00216

09/749,825 Art Unit 2614  
Response to May 6, 2005 Office Action

30. (Currently Amended) A system for providing digital entertainment data, the system comprising:

multiple tuners each selecting a respective content item from a plurality of content items and each tuner producing an output signal ~~a first tuner, the first tuner adapted to receive a plurality of transmission signals and to selectively output a first transmission signal of the plurality of transmission signals;~~

a data switch having a plurality of switch ports;

a shared communications link between the multiple tuners and a switch port of the data switch, the shared communications link shared amongst the multiple tuners, wherein the multiple tuners each share the communications link to communicate information to the switch port

a first demodulator, the first demodulator coupled to another switch port of the data switch ~~the first tuner, the first demodulator adapted to receive the output signal via the shared communications link to the data switch and producing a demodulated content item transmission signal, the transmission signal including an information signal, the first demodulator to output the information signal;~~

~~a data switch, the data switch coupled to the first demodulator, the data switch adapted to receive the information signal; and~~

a mass storage device, the mass storage device coupled to the data switch, the mass storage device adapted to store the demodulated content item information signal.

31. (Currently Amended) The system of claim 30, further comprising:

decryption logic coupled to the first demodulator

encryption logic coupled to the decryption logic,

wherein the content item information signal ~~is a first encrypted information signal,~~  
the decryption logic decrypting the first encrypted information signal, the encryption logic encrypting the decrypted first encrypted information signal to generate a second encrypted information signal, the second encrypted information signal being sent to the data switch, the mass storage device storing the second encrypted information signal..

BS00216

09/749,825 Art Unit 2614  
Response to May 6, 2005 Office Action

32. (Original) The system of claim 30, wherein the data switch has a plurality of high bandwidth switch ports.
33. (Original) The system of claim 32, wherein the plurality of high bandwidth switch ports include a plurality of 100Base-T Ethernet switch ports.
34. (Original) The system of claim 32, wherein the data switch has a switch port coupled to a lower bandwidth communications device.
35. (Original) The system of claim 34, wherein the lower bandwidth communications device is selected from the group consisting of a Home Phoneline Networking Alliance (HomePNA) port, a HomeRF Shared Wireless Access Protocol (SWAP) transceiver, an IEEE 802.11 transceiver, and a Bluetooth transceiver.
36. (Currently Amended) A method of providing digital entertainment data, the method comprising:
- receiving a plurality of transmission signals at multiple tuners, each transmission signal including an information signal;
  - selecting a first transmission signal of the plurality of transmission signals;
  - demodulating the first transmission signal to isolate a first information signal;
  - storing the first information signal on a mass storage device;
  - sending the first information signal to a digital data switch via a shared communications link between the data switch and the multiple tuners, the shared communications link shared amongst the multiple tuners, wherein the multiple tuners each share the communications link to communicate information signals to the data switch; and
  - sending the first information signal to a first broadband communications link coupled to the digital data switch.

BS00216

09/749,825 Art Unit 2614  
Response to May 6, 2005 Office Action

37. (Original) The method of claim 36, wherein:  
    sending the first information signal to a digital data switch includes  
        sending the first information signal to an analog-to-digital converter, and  
        outputting a first digital information signal, the first digital information signal  
        based at least in part on the first information signal; and  
    wherein sending the first information signal to a first broadband communications  
link coupled to the digital data switch includes sending the first digital information signal  
to the first broadband communications link coupled to the digital data switch.
38. (Original) The method of claim 36, further comprising:  
    selecting a second transmission signal of the plurality of transmission signals;  
    demodulating the second transmission signal to isolate a second information  
signal;  
    sending the second information signal to the digital data switch; and  
    sending the second information signal to a second broadband communications  
link coupled to the digital data switch.
39. (Currently Amended) The method of claim 38 36, further comprising superimposing  
multiple information signals onto a single information signal ~~storing the second  
information signal on the mass storage device.~~
40. (Currently Amended) The method of claim 36, further comprising storing an item  
identifier corresponding to each stored information signal, the item identifier having a  
value that indicates the information signal has been played, another value indicating the  
information signal has been purchased, and a third value indicating the information signal  
has been licensed ~~receiving from the first broadband communications link a command to  
control sending of the first information signal.~~

BS00216

09/749,825 Art Unit 2614  
Response to May 6, 2005 Office Action

41. (Currently Amended) The method of claim 40 36, further comprising storing an item identifier corresponding to each stored information signal, the item identifier storing a cost of playback for each information signal and a second cost of purchase for each information signal ~~wherein the command to control sending of the first information signal is selected from the group of a command to pause sending of the first information signal, a command to resend the first information signal, a command to increase a rate of sending of the first information signal, a command to decrease a rate of sending the first information signal, a command to stop sending the first information signal, and a command to resume sending of the first information signal.~~
42. (Currently Amended) The method of claim 38 36, further comprising receiving an item identifier corresponding to each information signal, the item identifier downloaded and stored on the mass storage device at a data rate that is less than a playback rate in bytes per second, and when a remaining amount of time required to complete the download is less than a playback time of the information signal, then indicating that the information signal is available for playback ~~a command from the second broadband communications link to control sending of the second information signal.~~

BS00216

09/749,825 Art Unit 2614  
Response to May 6, 2005 Office Action

43. (Currently Amended) The method of claim 36, further comprising receiving an item identifier corresponding to the information signal, the item identifier comprising a storage position identifier specifying a logical storage position in the mass storage device, and when new information signals are downloaded and stored, a new storage position identifier is also downloaded for the information signal already stored on the mass storage device:
- ~~selecting a third transmission signal of the plurality of transmission signals;~~
  - ~~demodulating the third transmission signal to isolate a third information signal;~~
  - ~~sending the third information signal to the digital data switch; and~~
  - ~~sending the third information signal to a first data communications link coupled to the digital data switch, the first data communications link having a lower bandwidth than the first broadband communications link.~~
44. (Original) The method of claim 36, wherein the digital data switch is an Ethernet switch.
45. (Original) The method of claim 36, wherein the digital data switch is a router.
46. (Original) The method of claim 36, wherein the first broadband communication link is selected from the group consisting of a category 5 cable, a category 5e cable, a category 6 cable, a category 7 cable, and an OC-3 cable.
47. (Original) The method of claim 44, wherein the first data communications link is selected from the group consisting of a Home Phoneline Networking Alliance (HomePNA) communications link, a HomeRF Shared Wireless Access Protocol (SWAP) communications link, an IEEE 802.11 communications link, and a Bluetooth communications link.

BS00216

09/749,825 Art Unit 2614  
Response to May 6, 2005 Office Action

48. (Currently Amended) A system for providing digital entertainment data, the system comprising:
- means for selectively outputting a first transmission signal of a plurality of transmission signals;
  - means for demodulating the first transmission signal to generate an information signal, the means for demodulating coupled to the means for selectively outputting;
  - means for switching digital data, the means for switching digital data coupled to the means for demodulating, the means for switching digital data adapted to receive the information signal along a shared communications link to multiple tuners, wherein the multiple tuners each share the communications link to communicate information to the means for switching digital data; and
  - means for mass storage, the means for mass storage coupled to the means for switching digital data, the means for mass storage adapted to store the information signal.
49. (Original) The system of claim 48, further comprising a plurality of means for broadband communications coupled to the means for switching digital data.
50. (Original) The system of claim 49, further comprising a plurality of means for interfacing a multimedia device, each means for interfacing a multimedia device coupled to a respective means for broadband communications.
51. (Original) The system of claim 48, further comprising means for lower bandwidth communications coupled to the means for switching digital data.